

App. Serial No. 10/607,749
Docket No. US020459
Office Action Response

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Remarks

Applicant respectfully traverses all of the rejections because Skibinski *et al.* (U.S. Patent No. 5,483,142) does not teach correspondence to all of the claimed limitations. For the reasons set forth below, Applicant respectfully submits that the claimed invention is allowable over the cited references.

The non-final Office Action dated August 24, 2006, indicated that claims 1-3, 7-9, 13-15 and 19 stand rejected under 35 U.S.C. § 102(b) over Skibinski; claims 4, 10 and 16 stand rejected under 35 U.S.C. § 103(a) over Skibinski in view of Hawkes (U.S. Patent No. 5,808,883); and claims 6, 12 and 18 stand rejected under 35 U.S.C. § 103(a) over Skibinski in view of Portasik (U.S. Patent No. 4,452,582).

Claims 5, 11 and 17 are indicated as allowable if rewritten in independent form to include the limitations of the base claims and any intervening claims. Applicant appreciates the allowability of claims 5, 11, and 17, but submits that the claims are allowable in view of the discussion herein. Accordingly, Applicant requests that the objections be removed.

Applicant must infer that Skibinski (U.S. 5,483,142) is the primary reference relied upon in the ensuing Section 103(a) rejections; and not U.S. 3,526,778 to L.B. Crocker (patent number cited in the preamble of the Section 103(a) rejections). This reasoning is based upon the continued reference in the Office Action discussion to Skibinski, and pursuant to the Notice of References Cited. Should this not be the Examiner's intent, Applicant requests that the Office Action be reissued to afford a proper response.

Claim 7 has been amended to correct a grammatical error. The amendment is not being made to overcome any issues of patentability or the rejections raised in the Office Action.

Applicant traverses all of the Section 102(b) rejections because the cited portions of the Skibinski reference do not correspond to each of the claimed limitations of independent claims 1, 7, 13 and 19. More specifically, the Office Action has failed to show correspondence for the limitations directed a fault detection circuit or to a precharge driver circuit being enabled by a control circuit responsive to a fault detection signal from the fault detection circuit. Applicant submits that the Office Action appears to be relying upon an erroneous interpretation of the Skibinski reference. With specific reference to the Office Action's apparent assertion that the differential amplifier 77 of the

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Skibinski reference for measuring a voltage is also a fault detection circuit, Applicant disagrees. Applicant submits that the Skibinski reference teaches that amplifier 77 measures the voltage across bus capacitor 60 to determine when the bus capacitor is fully charged (*see, e.g.*, col. 3, lines 11-18), and further submits, that there is no related discussion of detecting a fault. Applicant fails to see how a circuit for measuring a voltage corresponds to a fault detection circuit. In this pertinent field of electronic circuits, a skilled person would recognize that a fault detection circuit involves a fault that would result, for example, in a short circuit, an excess amount of current being drawn, unacceptable power dissipation or similar issues and conditions. Another example of a fault is a short in a circuit with the potential to cause high current draw.

In contrast, the differential amplifier 77 asserted by the Office Action measures the voltage across the bus capacitor (*i.e.*, compares two voltages) for the purposes of to determine when the bus capacitor is fully charged. Thus, the Office Action appears to assert that fault detection is the result of any comparison of two voltages, regardless of the purpose for the comparison. Applicant submits that while fault detection can be accomplished by a comparison of voltages, not all comparisons of voltages detect faults. For example, the cited differential amplifier 77 measures the voltage across the bus capacitor 60 for the purpose of sensing when the capacitor is fully charged and is unrelated to shorting, excess current draw, unacceptable power dissipation or similar issues associated with faults.

Moreover, Applicant is unable to find how the cited portions of the Skibinski reference teach that precharge circuit 55 is enabled in response to the voltage across the bus capacitor 60 measured by the differential amplifier 77. Applicant notes that the Skibinski reference teaches that differential amplifier is used to detect when the bus capacitor 60 is fully charged (*see, e.g.*, Fig. 3; col. 3, lines 11-14). Accordingly, the cited portions of the Skibinski reference do not teach that a precharge driver circuit is enabled in response to the differential amplifier as asserted by the Office Action.

Moreover, Applicant submits that the Office Action has failed to address the claimed limitations directed to a floating power transfer device. Applicant submits that the Office Action has failed to show how the circuit of FIG. 3 corresponds to a floating power transfer device. More specifically, Applicant is unable to find any teachings in the cited reference

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that would support the Office Action's assertion that the Skibinski reference is directed to a floating power transfer device. Instead, the Skibinski reference appears to be directed to precharging AC to DC converter circuits (*see, e.g.*, Abstract and Summary).

In view of the above, the cited portions of the Skibinski reference fail to teach a each of the claimed limitations. Without a presentation of correspondence to each of the claimed limitations, the Section 102(b) rejections cannot be maintained. Accordingly, the rejections of independent claims 1, 7, 13 and 19, as well as the rejections of claims 2-3, 8-9 and 14-15 that depend from claims 1, 7 and 13 respectively, are improper and Applicant requests that they be withdrawn. Notwithstanding the impropriety of the rejections of all of the dependent claims as related to the independent claims above, the limitations of certain dependent claims are addressed further below.

For example, the cited portions of the Skibinski reference do not correspond to limitations of claims 2, 7 and 14 directed to the fault detection circuit residing in a floating portion of the floating power transfer device and the control circuit residing in a ground referenced portion of the floating power transfer device. The Office Action asserts that differential amplifier 77 and control circuitry 78 correspond to the fault detection circuit and the control circuit, respectively, of the claimed invention. However, the cited portions of the Skibinski reference teach that differential amplifier 77 and control circuitry 78 are both part of precharge circuit 55 (*see, e.g.*, Fig. 3). Moreover, the Office Action has not provided a cite to any reference that corresponds to claimed limitations directed to a float level shift circuit for shifting the fault detect signal from the floating portion of to the ground referenced portion. Therefore, the Section 102(b) rejections of claims 2, 7 and 14 are improper and Applicant requests that they be withdrawn.

Applicant traverses the Section 103(a) rejections of claims 4, 10 and 16 because the cited portions of the Skibinski reference fail to correspond to the claimed invention as discussed above in connection with the Section 102(b) rejections of claims 1, 7 and 13. In this regard, the rejections of claims 4, 10 and 16 are improper because these claims depend from claims 1, 7 and 13 respectively.

Moreover, the Office Action appears to rely upon an erroneous interpretation of at least the teachings of the Skibinski reference. More specifically, the Office Action asserts that power supply 76 in Fig. 3 of the Skibinski reference corresponds to the

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claimed power supply. However, the Skibinski reference teaches that current from phase A of three phase AC supply 51 is used to charge bus capacitor 60 (*see, e.g.*, Fig. 3; col. 3, line 54 to col. 4, line 6). The Skibinski reference further teaches that power supply 76 supplies power to control circuitry 78 (*see, e.g.*, col. 2, lines 19-30; col. 3, lines 7-10); however, the power supply 76 does not charge bus capacitor 60 as asserted by the Office Action. Thus, the Office Action has failed to teach correspondence for the claimed limitations directed to a power supply that charges the reservoir capacitor using a voltage level in the range of 5 to 20 volts. Accordingly, the Section 103(a) rejections of claims 4, 10 and 16 are improper and Applicant requests that they be withdrawn.

Applicant traverses the Section 103(a) rejections of claims 6, 12 and 18 because the cited portions of the Skibinski reference fail to correspond to the claimed invention as discussed above in connection with the Section 102(b) rejections of claims 1, 7 and 13. In this regard, the rejections of claims 6, 12 and 18 are improper because these claims depend from claims 1, 7 and 13 respectively.

Moreover, the cited portions of the Portasik reference do not correspond to claimed limitations directed to a temperature sensor for detecting when the temperature of a switch rises above a set temperature level. The cited portions of the Portasik reference teach detecting the temperature of a heating apparatus during ignition; if the temperature falls below a certain level then the ignition of the system failed (*see, e.g.*, Abstract). The cited portions of the Portasik reference further teach that when the temperature environment at a thermister 16 goes below a preselected value a signal is generated (*see, e.g.*, col. 3, lines 8-15). The cited portions of the Portasik reference do not teach sending an over temperature signal or a temperature sensor that detects when the temperature of a switch rises above a set level. Therefore, the Section 103(a) rejections of claims 6, 12 and 18 are improper and Applicant requests that they be withdrawn.

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In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Applicant respectfully requests that the rejections be withdrawn. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the senior patent counsel overseeing the application file, Kevin H. Fortin, Esq. at (408) 474-9071.

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